

PROFILE OF AMARNATHJI YATRI PATIENTS ATTENDING SHER-I-KASHMIR INSTITUTE OF MEDICAL SCIENCES SRINAGAR INDIA DURING THE YEAR 2015

G.H YATOO¹, AMIR S KHAN², MALIK AUBID³ & SHARIQ R MASOODI⁴

¹Associate Professor, Department of Hospital Administration SKIMS, Soura Srinagar, Jammu and Kashmir, India

²Senior Resident, Department of Hospital Administration SKIMS, Soura Srinagar, Jammu and Kashmir, India

³Medical Officer, Health Services Kashmir Division, Jammu and Kashmir, India

⁴Professor, Department of Endocrinology SKIMS, Soura Srinagar, Jammu and Kashmir, India

ABSTRACT

Background

The holy cave shrine of Amarnath is one of the important pilgrimage sites of Hinduism and is one such site of great reverence for the Hindus. The 130-ft high holy cave of "Baba Amaranthji," situated in the Northern Indian state of Jammu and Kashmir at a height of 13,000 ft (3882 m) and about 141kms from Srinagar, the summer capital of Jammu and Kashmir and believed to be the abode of Lord Shiva. Because of high altitude, rough terrain, harsh weather, pilgrims are prone to many illnesses which sometimes these prove fatal.

Objective

To study the profile and outcome, among yatri patients attending SKIMS

Methodology

A prospective study was carried out during the yatra period, all pilgrims of Amarnath Yatra who were referred to SKIMS from July-August 2015 were studied and the patients were followed from admission till discharge. The pattern and outcome of illness in Yatris attending Yatra in the year 2015 was compared with the results of year 2011.

Results

Out of 61 patients received at SKIMS, 33 (54.10%) were having minor ailments and were seen on OPD basis, 28 (45.91%) were admitted. 21(75%) admitted were males. Patients received at SKIMS were in the range from 21- 72 years. 12(42%) were from Central and Eastern part of India. At the time of arrival 5 (17.29%) were Acute Myocardial Infarction followed by 4 (14.29%) High Altitude Cerebellar Edema, 4 (14.29%) Road Traffic Accident and 4 (14.29%) Fall from Height. Out of 28 admitted patients 12 (42.9%) patients improved, 6(21.4%) recovered, 8(28.6%) were discharged on request, 1 (3.6%) was referred and 1 (3.6%) expired

Conclusions

Comparison of the present study with previous study in year 2011 shows that the no. of referred patients had decreased significantly in present study which may be attributed to better pre yatra health checkup and up gradation of health care facilities enroute Amarnath cave. There was significant increase in discharge of cases on request, which may be attributes to the better transport facility arrangements for Yatri patients to their home town.

KEYWORDS: Pilgrimage, Amarnathji Yatra, Pre-Yatra Checkup, Illness, High Altitude Cerebral Edema, High Altitude Pulmonary Edema, Road Traffic Accident

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INTRODUCTION

For centuries past, Kashmir has been considered as one of the holiest land, and pilgrimage tourism occupies a central place. Pilgrimage tourism sites of various religions are spread throughout the length and breadth. The holy cave shrine of Amarnath is one of the important pilgrimage sites of Hinduism and is one such site of great reverence for the Hindus. It is such a place that attracts lakhs of devotees and tourists across the country (even foreigners) every year culminating into a sacred atmosphere and religious fervor (1)

The 130-ft high holy cave of “Baba Amaranthji,” situated in the Northern Indian state of Jammu and Kashmir at a height of 13,000 ft (3882 m) and about 141Kms from Srinagar, the summer capital of Jammu and Kashmir and believed to be the abode of Lord Shiva. The cave shrine is visited by thousands of devotees each year over a 6-week period starting from the last part of the month of June; the pilgrimage termed as “Amarnath Yatra.” The Amarnath Holy Cave standing at 3,888 m is located in a narrow gorge at the farther end of the Lidder valley in South Kashmir. Two routes are available to the pilgrims, the longer route through Pahalgam (414 km from Jammu) and the relatively short Baltal route (363 km from Jammu). The Yatra usually lasts for 45 days, midsummer every year. (2)

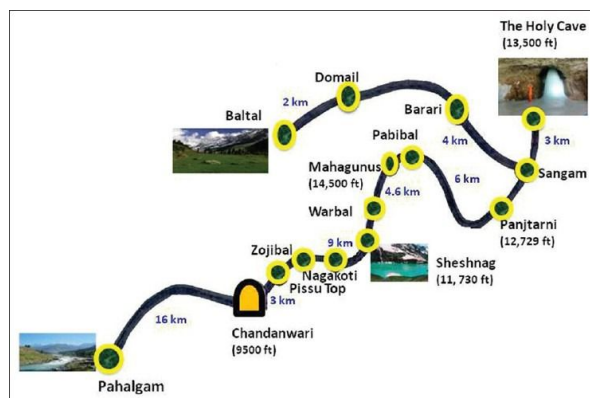


Figure 1: Yatra is Hosted by the State Government of Jammu and Kashmir and Shri Amarnathji Shrine Board (SASB)

Because of high altitude, rough terrain, harsh weather, pilgrims are prone to many illnesses including respiratory and gastrointestinal infections, food poisoning, fall from height, road traffic accidents, and high altitude pulmonary edema (HAPE) and sometimes these prove fatal. During the Yatra period, Department of Health, Govt. of Jammu and Kashmir usually establishes special medical camps en-route to Amaranthji cave. The patients not manageable in these camps are referred to different secondary and tertiary care hospitals in valley. Sher-i-Kashmir institute of medical sciences is a super specialty teaching university hospital catering to all the three provinces of Jammu and Kashmir State. Most of the Amaranthji Yatra patients requiring super-specialty care are referred to this institute for treatment. (3) As per the hospital policy, all the patients admitted in the emergency medicine department are evaluated and after admission if the patient needs treatment and care for less than 48 hours are kept in observation ward in emergency department only and the patients who need treatment for more than 48 hours are sent to the specialty under which patient is admitted.

From the results of our study in 2011 it was suggested that i) Pre-yatra checkup should be done before registering the yatris for Amarnath pilgrimage and those with co morbidity should be allowed to visit the Holy cave only after special travel arrangements taking due cognizance of the medical illness. ii) Health care infrastructure should be upgraded on way to Amarnath cave. iii) Number of yatris should be limited as per the facilities available particularly in relation to sanitation

and other civic amenities (3).

This study was done to observe that the suggestions from earlier study in 2011 had made any effect on the management of Yatris who need medical care.

METHODOLOGY

A prospective study was carried out at SKIMS a 765 bedded super specialty hospital of Jammu and Kashmir state. All pilgrims of Amarnath Yatra who were referred to SKIMS from July-August 2015 were studied and the patients were followed from admission till discharge. Data was collected and entered in a pretested proforma. Data analysis was done by SPSS using standard analytical technique. The pattern and outcome of illness in Yatris attending Yatra in the year 2015 was compare with the results of previous analysis of 2011.

RESULTS

Total Yatri patients received at Emergency Medicine Department of SKIMS during the yatra period of July-August 2015 were 61, out which 33 yatri patients were having minor ailments and were seen on OPD basis for investigation, observation and treatment where as 28 yatri patients were admitted.

Gender wise distribution: Among total of 28 yatris admitted at SKIMS, 21 (75%) were males and 7 (25%) were females

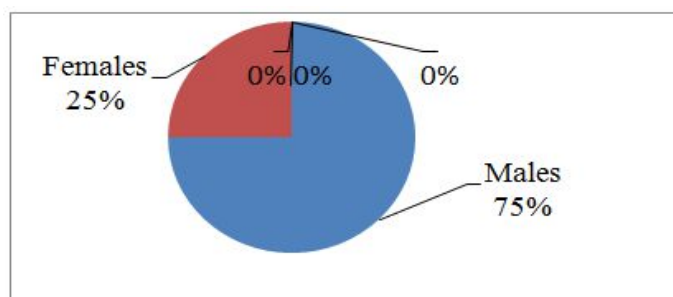


Figure 2: Pie Chart Showing Gender Wise Distribution

Age Distribution: 7 (25%) Yatri patients were in the age group of 21-30 years, 8 (28.57%) Yatri patients were in the age group of 31-40 years, 7 (25%) Yatri patients were in the age group of 41-50 years, 4 (14.29%) Yatri patients were in the age group of 51-60 years while as 1 (3.5%) each Yatri patients were in the age group of 61-70 years and 71-80 years respectively. (Table 1).

Table 1: Distribution as Per Age Group

Age Group	N (%)
21-30	7 (25.00%)
31-40	8 (28.57%)
41-50	7 (25.00%)
51-60	4 (14.29%)
61-70	1 (03.50%)
71-80	1 (03.50%)

Geographical Distribution: 12 (42.9%) were from central and East India, 8 (28.6%) from North India, 4 (14.3%) from West India and 4 (14.3%) from other parts of India. (Table 2)

Among 28 admitted Yatri patients, 23 (82%) were admitted with multiple disease and only 5 (17.9%) with single disease.

Table 2: Geographical Distribution

Geographical Area	N (%)
North India	8 (28.6%)
West India	4 (14.3%)
Central and East India	12(42.9%)
Others	4 (14.3%)

Among total of 28 Yatri patients, 7 (25%) were admitted in General Medicine, 7 (25%) in Neurosurgery, 5 (17.9%) in Cardiology, 3 (10.7%) in Endocrinology, 2 (7.1%) in General Surgery and 1 (3.6%) each in Cardio Vascular Thoracic Surgery, Gastroenterology, Neurology and Plastic and Reconstructive Surgery. (Table 3)

Table 3: Admitting Department wise Distribution of Yatri Patients

Admitting Department	N (%)
General Medicine	7 (25%)
Neurosurgery	7 (25%)
Cardiology	5 (17.9%)
Endocrinology	3 (10.7%)
General Surgery	2 (7.1%)
Cardio Vascular Thoracic Surgery	1 (3.6%)
Neurology	1 (3.6%)
Plastic and Reconstructive Surgery	1 (3.6%)

Distribution of Yatri Patients as per Main Diagnosis: Out of 28 Yatri patients admitted, 5 (17.86%) were admitted with Myocardial Infarction, 4 (14.29%) were admitted with High Altitude Cerebral Edema, 4 (14.29%) were admitted as case of Road Traffic Accident, 4 (14.29%) were admitted as case of fall, 3 (10.71%) were admitted with Diabetes Ketoacidosis, 2 (7.14%) were admitted with High Altitude Pulmonary Edema, 1 (3.57%) each with Splenic Infarct, Chronic Obstructive Pulmonary Disease, Duodenal Perforation, Gastro-Intestinal Bleed, Multi Drug Resistant Tuberculosis with Bronco-Pleural Fistula and Brain Infarct respectively.

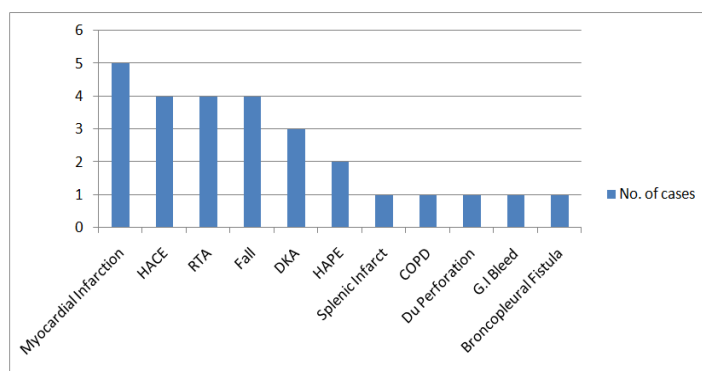


Figure 3: Bar Chart Showing Distribution as Per Diagnosis

Distribution as per GCS: At the time of admission in the emergency department of SKIMS, 2 patients (7.15%) were having the GCS between 3-8 (Severe Disability), 5 patients (17.85%) were having GCS between 9-12 (Moderate Disability) and 21 patients (75%) were having GCS between 13-15 (Mild Disability). (Table 4)

Table 4: Distribution as Per GCS at the Time of Admission

GCS	N (%)	Expired
3-8	2 (07.15%)	1 (3.6%)
9-12	5 (17.85%)	Nil
13-15	21 (75.00%)	Nil

Location at the time of Discharge from Hospital: Out of 28 Yatri patients, location at the time of discharge was 4 (14.3%) at Cardiology, 1 (3.6%) at CVTS, 2 (7.1%) at Emergency Medical Reception, 6 (21.4%) at Emergency Surgical Reception, 4 (14.3%) at Emergency Medical Observation Ward, 2 (7.1%) at Emergency Surgical Observation Ward, 3 (10.7%) at Endocrinology, 3(10.7%) at General Medicine, 1 (3.6%) at General Surgery, 1 (3.6%) at Neurology and 1 (3.6%) at Plastic and Reconstructive Surgery.

Outcome of Treatment: Out of total 28 Yatri patients admitted, at the time of discharge from hospital, 12 (42.9%) patients improved, 6 (21.4%)patients recovered, 1(3.6%) patient was referred to SKIMS Medical College for further treatment, 8(28.6%) patients were discharged on request, and 1(3.6%) patient expired.(Table 5)

Table 5: Distribution as Per Treatment Outcome

Treatment Outcome	N (%)
Improved	12 (42.9%)
Recovered	6 (21.4%)
Referred to other Hospital	1 (3.6%)
Discharge on Request	8 (28.6%)
Expired	1 (3.6%)

Average Length of stay in the hospital was 9.02 days. The average length of stay is specifically high due to one patient whose length of stay was 130 days.

DISCUSSIONS

Amarnath is a famous shrine in Hinduism, located in the state of Jammu and Kashmir. It is dedicated to Lord Shiva. Lack of devotees visit the Amarnath cave every year in the month of July-August to see an ice stalagmite formed inside the cave. The cave is situated at a high altitude difficult mountainous terrain with harsh weather conditions.

During this yatra devotees are prone to illness and accidents, for which special medical treatment facilities are provided enroute to the Amarnath cave. Patients who

Need special care are referred to state level health care centers like Shri Maharaja Hari Singh (SMHS) Hospital, Bone and Joint Hospital (BJH) and Sher-i-Kashmir Institute of Medical Sciences (SKIMS). Two routes are available for Yatra, one is via Pahalgam situated in south Kashmir and another is via Baltal situated in central Kashmir nearer to Srinagar. As SKIMS is the nearest tertiary care center enroute Baltal so Yatris patients who need special care are referred to SKIMS for management.

High altitude religious excursions are very common in India and many experience ill effects of high altitude. Due to over enthusiasm, many people try to conceal their illness and they face serious emergencies during the pilgrimage, posing serious problems to the organizers and the authorities. The situation is further aggravated by difficult terrains, lack of infrastructure and acclimatization. To avoid fatalities government had made it mandatory to undertake a medical check-up before allowing any such pilgrimage (4).

A study by Shah Adfer mentioned that number of short comings/ dysfunctions had come up in the management of pilgrims beset with the environs around the holy cave, besides lot of issues of the pilgrims. This study provided holistic overview of Amarnath pilgrimage and sum up the basic issues, challenges faced by the pilgrims (5).

Medical literature about high altitude pilgrimage is sparse. Gosainkunda Lake (4300m) near Kathmandu, Nepal and Sri Amarnath yatra (3800m) in Srinagar, Kashmir, India are two sides in the Himalayas from where the majority of published reports of high altitude pilgrims have originated. Epidemiological studies of pilgrims from Gosainkunda Lake show that some of the important risk factors for acute mountain sickness (AMS) in pilgrims are female sex and older age group. Studies based on Shri Amarnath yatra pilgrims show that coronary artery disease, complication of Diabetes and peptic ulcer disease are some of the common and important reasons for admission to hospital during the yatra (6).

Poorly acclimatized people from the plains are at high risk of developing various manifestations of high altitude illness, non-traumatic surgical emergencies and hyperglycemic emergencies during the holy pilgrimage to the Amarnath cave shrine. Yatris agreed to have concealed their ailments while seeking medical certificate from medical practitioner in their intense desire to undertake the pilgrimage and there was generally lack of awareness of the challenges posed by the journey. These indicate a knowledge deficit, which needs to be adequately addressed through intensive educational efforts aimed at better preparing the yatris for the holy trek (7). Whereas our study showed that Myocardial infarction was the leading cause for admission, followed by High Altitude Cerebellar Edema (HACE) and Road Traffic Accidents (RTA).

Trauma during pilgrimage is a real surgical problem which deserves more attention. Orthopedic and neurosurgical cases were the most common surgical cases during Hajj period (8). Whereas in our study neurosurgery patients were second commonest cause for admission

During Hajj, 54% elderly more often develop serious illness with higher death rates. Common co-morbidities in pilgrims include COPD, Hypertension and Diabetes and they contributes to higher morbidity and mortality (9). Our study also showed co morbidities like Diabetes, Hypertension and COPD which lead to higher morbidities and prolong length of stay.

CONCLUSIONS

Keeping in view the suggestions in our previous study of Yatri patients in 2011 that i) Pre-yatra checkup should be done before registering the yatris for Amarnath pilgrimage and those with co morbidity should be allowed to visit the Holy cave only after special travel arrangements taking due cognizance of the medical illness. ii) Health care infrastructure should be upgraded on way to Amarnath cave.iii) Number of yatris should be limited as per the facilities available particularly in relation to sanitation and other civic amenities.

The pattern and outcome of illness in Yatri patients who were referred to SKIMS in 2015 was compared with results of previous analysis of 2011.

It was observed that in 2011: Total Yatri patients received 185, out of which 100 (54%) patients were having minor ailment and were not admitted. 85(45%) Yatri patients were admitted for treatment. Total recovered were 77 (90%), 2 (2.4%) Left against Medical Advise (LAMA), 1 (1.2%) was discharged on request and 5 (5.9%) expired (3).

In our study in 2015: Total Yatri patients received were 61, out of which 33 had minor ailment and were not admitted. Out of 28 Yatri patients admitted, 12 (42.95) improved, 6 (21.4%) recovered, 1 (3.6%) was referred to SKIMS

Medical College for further treatment, 8 (28.6%) were discharged on request and 1 (3.6%) expired.

Comparison shows that the no. of referred patients had decreased significantly which may be attributed to better pre yatra health checkup and up gradation of health care facilities en route Baltal to Amarnath cave. There was significant increase in discharge on request cases, which may be attributes to the better transport facility arrangements for Yatri patients to their home town.

The present study also advises pre yatra medical clearance and provision of basic facilities enroute Amarnath cavelike First Aid Centers, Emergency Hospitals with airlifting referrals and Basic Life amenities including proper sanitation, hygienic food, electricity and adequate clean drinking water supply

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